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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/866,600 | 05/30/2001 | Kazunori Iwamoto | 862.C2246 | 4961 |

5514 7590 07.08.2003

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NEW YORK, NY 10112

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| EXAMINER |
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NGUYEN, HUNG

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| ART UNIT | PAPER NUMBER |
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2851

DATE MAILED: 07/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/866,600

Applicant(s)

IWAMOTO ET AL.

Examiner

Hung Henry V Nguyen

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 30 April 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 24 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Nishida et al (JP-405217837A).

With respect to claim 24, Nishida discloses an X-Y stage and a corresponding stage position measurement method comprising a stage movable along X and Y axes, a laser head (6) for generating a laser beam; an optical unit (9) mounted on the stage and splits the laser beams into reference and measurement beams; a mirror (11a,b) arranged outside the stage and reflects the measure beam; and detector (10) for detecting the interference beam of the reference and measuring beams and making the reference beams and measuring beams interfere with each other for measuring a position of the stage (see fig.1).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-23 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishida et al (JP-405217837A)

With respect to claims 1-23 and 25-26, Nishida (fig.2) discloses a stage apparatus which comprises substantially all of the basic features of the instant claims such as: a stage (5) movable along X and Y axes, a laser head (6) for generating a laser beam; an optical unit (9a-9c) which are arranged outside the stage for splitting the laser beams into reference and measurement beams; a mirror (11a,b) for reflecting the measurement beams and returning these beams to the optical unit/interferometer; and detector (10a-b) which are arranged outside the stage (5) for detecting the reference beam and measuring beams and causing the reference beams and measuring beams interfere with each other. In figure 2, Nishida does not expressly disclose the mirrors (11) being arranged outside the stage. However, in figure 1, Nishida teaches a stage apparatus where the mirrors (11a,11b) are arranged outside the stage (5). The purpose of doing so is to reduce the size of the stage apparatus. In view of such teachings, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Figs 1 and 2 of Nishida to obtain the invention as specified in claims 1-23 and 25-26 of the instant invention for at least the purpose of reducing the physical size and weight of the stage apparatus as suggested by Nishida. Furthermore, it is noted that a prior art apparatus satisfying the claimed features (as is clearly illustrated in this case), it would have been obvious to a skilled artisan to rearrangement of parts, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

5. Claims 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishida in view of Umatabe (U.S.Pat. 5,243,377).

Art Unit: 2851

With respect to claims 27-30, Nishida discloses substantially all of the limitations of the instant claims as discussed except for the stage apparatus/exposure apparatus being communicated via a computer network such as a LAN or Internet. However, this in itself does not provide any inventive steps. For example, Umatate et al discloses a plural exposure apparatus and a host management system (H-COM), a network interface, a computer and the information relating to each of the exposure apparatuses can be communicated by a computer network (see fig.1 of Umatate et al). It would have been obvious to a skilled artisan to utilize a computer network as taught by Umatate for stage device of Nishida for remotely and automatically managing, analyzing, troubleshooting and maintenance stage device and the exposure apparatus.

Response to Amendment

6. Applicant's amendments filed April 30, 2003 have been entered. Claims 1, 18, 24-26 and 28-30 have been amended. The Request for approval of drawing changes has been approved. The rejection of claims 18-19 under 35 U.S.C. 112, second paragraph is withdrawn. Turning to amended claims, applicant's arguments with respect to the prior art of record, have been carefully and have been traversed in view of new grounds of rejection as set forth above.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2851


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V Nguyen whose telephone number is 703-305-6462. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on 703-308-2847.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.

hvn
July 2, 2003


HENRY HUNG NGUYEN
PRIMARY EXAMINER